

**Listing of the Claims:**

The following is a complete listing of all the claims in the application, with an indication of the status of each.

- 1 1. (Previously Presented) A data processing device including:
  - 2 a processor;
  - 3 a charge storage device coupled to the processor;
  - 4 a current source for supplying the processor with substantially constant
  - 5 operating current at multiple nonzero current levels, and adapted to vary its
  - 6 output current independently of an instantaneous power demand of the
  - 7 processor by switching either periodically or aperiodically between the multiple
  - 8 nonzero current levels.
- 1 2. (Currently Amended) The device of claim 1 wherein in which the charge
- 2 storage device comprises a capacitor in series with the current source, and
- 3 across which the processor is connected in parallel.
- 1 3. (Currently Amended) The device of claim 1 wherein in which the current
- 2 source is adapted to periodically or aperiodically switch between two different
- 3 nonzero current levels.
4. (Canceled)

1       5. (Currently Amended) The device of claim 3 wherein in which the current  
2       source determines the interval between switching current levels based on is  
3       determined by an average power demand of the processor.

1       6. (Currently Amended) The device of claim 1 wherein in which the current  
2       source further comprises:

3               a second current source adapted to provide a noise current that varies on  
4       a random or pseudo-random basis.

1       7. (Currently Amended) The device of claim 1 further including a control means  
2       for the current source adapted to maintain the supply voltage to the processor  
3       between an upper voltage limit and a lower voltage limit.

1       8. (Currently Amended) The device of claim 1 further including a zener diode  
2       adapted to maintain the supply voltage to the processor between an upper  
3       voltage limit and a lower voltage limit.

1       9. (Currently Amended) The device of claim 7 wherein in which the control  
2       means includes a current switching means for switching the current source  
3       between a first, higher current level and a second, lower current level, the  
4       current level switching being triggered by the supply voltage to the processor  
5       respectively reaching the lower voltage limit and the upper voltage limit.

1 10. (Original) The device of claim 9 further including a timer for determining a  
2 time period taken for the processor supply voltage to reach a lower voltage limit  
3 from an upper voltage limit, or vice versa.

1 11. (Currently Amended) The device of claim 10 further including current  
2 setting means for varying at least one from among the first current level and  
3 and/or the second current level of the current source if the timer determines  
4 that the time period falls outside the predetermined limits.

1 12. (Currently Amended) The device of claim 11 wherein the predetermined  
2 limits include a first predetermined threshold, and wherein in which the  
3 current setting means raises the first current level if the timer determines that  
4 the time period for reaching the lower voltage limit falls below the [[a]] first  
5 predetermined threshold.

1 13. (Currently Amended) The device of claim 11 wherein the predetermined  
2 limits include a second predetermined threshold, and wherein in which the  
3 current setting means reduces the first current level if the timer determines  
4 that the time period for reaching the lower voltage limit exceeds the [[a]] second  
5 predetermined level.

1 14. (Currently Amended) The device of claim 11 wherein the predetermined  
2 limits include a first predetermined threshold, and wherein in which the  
3 current setting means reduces the second current level if the timer determines

4 that the time period for reaching the upper voltage limit exceeds the [[a]] first  
5 predetermined level.

1 15. (Currently Amended) The device of claim 11 wherein the predetermined  
2 limits include a second predetermined threshold, and wherein in which the  
3 current setting means raises the second current level if the timer determines  
4 that the time period for reaching the upper voltage limit exceeds the [[a]] second  
5 predetermined level.

1 16. (Currently Amended) The device of claim 9 wherein in which the control  
2 means includes means for temporarily inhibiting the current switching means if  
3 the supply voltage to the processor fails to move towards the desired upper  
4 voltage limit or the lower voltage limit.

1 17. (Currently Amended) The device of claim 1 wherein in which the processor  
2 has an internal clock having a ,the frequency that of which is dependent upon  
3 the supply voltage to the processor.

1 18. (Currently Amended) The device of claim 1 wherein in which the processor  
2 is a cryptographic processor.

1 19. (Currently Amended) The device of claim 1 further comprising a  
2 incorporated into a smart card supporting the processor, the charge storage  
3 device, and the current source.

1    20. (Currently Amended) A method of operating a data processing device  
2    comprising the steps of:  
3        drawing current from the an external power supply; and  
4        utilizing the drawn current, [[to]] generating and cyclically apportioning  
5        a substantially constant current flow from a current source between a charge  
6        storage device and a processor within the data processing device,  
7        wherein the substantially constant current flow that is periodically or  
8        aperiodically switched between multiple different nonzero current levels, such  
9        that the drawn current varies independently of the instantaneous power  
10      demand of the processor.

1    21. (Currently Amended) The method of claim 20 wherein further including the  
2    step of utilizing the drawn current for generating and apportioning generate a  
3    current flow to the processor and the charge storage device switches, that is  
4    periodically or aperiodically, switched between two different nonzero current  
5    levels.

22. (Canceled)

1    23. (Currently Amended) The method of claim 21 wherein further including the  
2    step of generating and apportioning a current flow includes determining the  
3    interval between switching according to an average power demand of the  
4    processor.

1       24. (Currently Amended) The method of claim 20 wherein the step of generating  
2       and apportioning a current flow utilizes a first current source, and further  
3       includes including the steps of:

4               utilizing a second current source to provide a superposed current that  
5       varies on a random or pseudorandom basis and  
6               delivering the combined current of the first and second current sources to  
7       the processor and the charge storage device.

1       25. (Previously Presented) The method of any one of the claims 20, 21, 23, and  
2       24 further including the step of maintaining a supply voltage to the processor  
3       between an upper voltage limit and a lower voltage limit.

1       26. (Currently Amended) The method of claim 25 wherein further including the  
2       step of generating and apportioning a current flow switches the switching a  
3       current source between a first, higher current level and a second, lower, current  
4       level, when the supply voltage to the processor respectively reaches the lower  
5       voltage limit and the higher voltage limit.

1       27. (Currently Amended) The method of claim 26 wherein the step of generating  
2       and cyclically apportioning a current flow further includes including the steps  
3       of:

4               determining a time period taken for the processor supply voltage to reach  
5       a lower voltage limit from an upper voltage limit, or vice versa, and

6                   varying the first current level and/or the second current level of the  
7                   current source if the time period falls outside predetermined limits.

1       28. (Currently Amended) The method of claim 27 wherein said step of varying  
2       further includes including the step of raising the first current level if the time  
3       period for reaching the lower voltage limit falls below a first predetermined  
4       threshold.

1       29. (Currently Amended) The method of claim 27 wherein said step of varying  
2       further includes including the step of reducing the first current level if the time  
3       period for reaching the lower voltage limit exceeds a second predetermined  
4       threshold.

1       30. (Currently Amended) The method of claim 27 wherein said step of varying  
2       further includes including the step of reducing the second current level of the  
3       time period for reaching the upper voltage limit falls below a first  
4       predetermined threshold.

1       31. (Currently Amended) The method of claim 27 wherein said step of varying  
2       further includes including the step of raising the second current level if the time  
3       period for reaching the upper voltage limit exceeds a second predetermined  
4       threshold.

1    32. (Currently Amended) The method of claim 26 further including the step of  
2    temporarily inhibiting the current switching if the supply voltage to the  
3    processor fails to move towards the ~~desired~~ upper voltage limit or the lower  
4    voltage limit.

1    33. (Original) The method of claim 20 further including the step of controlling  
2    the frequency of operation of the processor as a function of the supply voltage to  
3    the processor.

34-35. (Canceled)

1    36. (Currently Amended) The method of claim 28 wherein said step of varying  
2    further includes including the step of reducing the first current level if the time  
3    period for reaching the lower voltage limit exceeds a second predetermined  
4    threshold.